

Is an all-inclusive educational policy a determinant of voting behaviour in Ghana?

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Ghana

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Abstract

Purpose – In this study, the authors investigate Ghana's Free Senior High School policy as an all-inclusive development policy that drives voting behaviour.

Design/methodology/approach – Using the snowball sampling technique and a statistically representative sample size of 413 eligible voters from Ghana, the authors estimate a multinomial logistic regression with its marginal effects.

Findings – The results show that as the number of Free Senior High School beneficiaries per household increases, the more the voters in that household are likely to vote for the policy implementor. Similarly, voters who believe that the Free Senior High School policy has had an impact on students' performance are more likely to vote for the policy implementor. By implication, an all-inclusive development policy such as the Free Senior High School educational policy has the probability of influencing voting behaviour in favour of the policy implementor.

Originality/value – To the best of the authors' knowledge, this is the first study to investigate the nexus between an all-inclusive Free Senior High School educational policy and voting behaviour in Ghana.

Keywords Free senior high school, Education, Electoral outcome, Votes, Multinomial logit, Ghana

Paper type Research paper

1. Introduction

Several empirical studies have sought to explain the high cost of illiteracy to human wellbeing, economic growth and development (For example: [Blaug, 1966](#); [Thomas, 1989](#); [Zhang, 2020](#)). In an effort to mitigate this development cost, the United Nations Educational, Scientific and Cultural Organization ([UNESCO, 2005](#)) introduced “The Salamanca Agreement”–Education for All policy in 1994. This was a bold initiative to get many individuals in the world educated through an inclusive orientation. This agreement has cascaded into many educational initiatives by governments to increase access to education.

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To get more children into school, the Government of Ghana, for example, implemented the Free Compulsory Universal Basic Education (FCUBE) programme in 1996 with the backing of the 1992 Constitution of Ghana [1]. The principal aim of the FCUBE was to achieve universal primary education in Ghana by 2015. The positive impact of the FCUBE on enrolment has been enormous. For example, the latest data on Ghana shows that primary school dropouts have fallen significantly from 1,220,086 in 1996 to 45,432 in 2019 (World Bank, 2020).

Similarly, in line with Ghana’s 1992 constitutional provision and commitment to the Education for All policy, Ghana introduced the Free Senior High School (FSHS) programme in September 2017. The FSHS policy by the Government of Ghana holds that every child in Ghana who qualifies for and is placed in a public Senior High School for secondary education will pay no fees. This is also in line with Goal 4 of the United Nations Sustainable Development Goals (SDGs) which provides that “By 2030, [nations should] ensure that all girls and boys complete free equitable and quality primary and secondary education leading to relevant and effective learning outcomes.”

From Figure 1, it is evident that secondary school total enrolment regardless of age has seen massive growth rates for the years 2018 and 2019 from an abysmal growth rate in 2017. Statistically, gross enrolment at the secondary school level which stood at 0.15% when the FSHS policy was introduced reached 4.71% at the end of 2019. Female pupil enrolment reached a growth rate of 5.43% in 2019 from as low as 0.47% in 2017. Again, the male counterpart grew to 4.03% in 2019 from -0.14% in 2017. It can therefore be inferred that the introduction of FSHS has positively impacted students’ enrolment, with females still contributing significantly to the overall enrolment growth relative to the males. Indeed, this trend is not surprising as per the World Bank School enrolment data [2]—there are more females in primary schools than males. All else held constant, with the introduction of the FSHS policy, it should be expected that females will still dominate at the secondary level.

The FSHS policy was implemented to advance the human capital development of the country. This policy meant that the government absorbed the total cost of students pursuing secondary education. With this policy, the burden of parents, guardians and sponsors of students in Senior High Schools in Ghana have been lessened, in addition to creating an all-inclusive educational opportunity. The expectations are that the country will see improvement in its human capital development in the next few years towards reducing unemployment and creating a sustainable future for the youth (see Djajić, 1985).

Although the issues of access, quality and competition have been of concern to stakeholders of education (Friedman, 1962), the possibility of politicians using such an all-

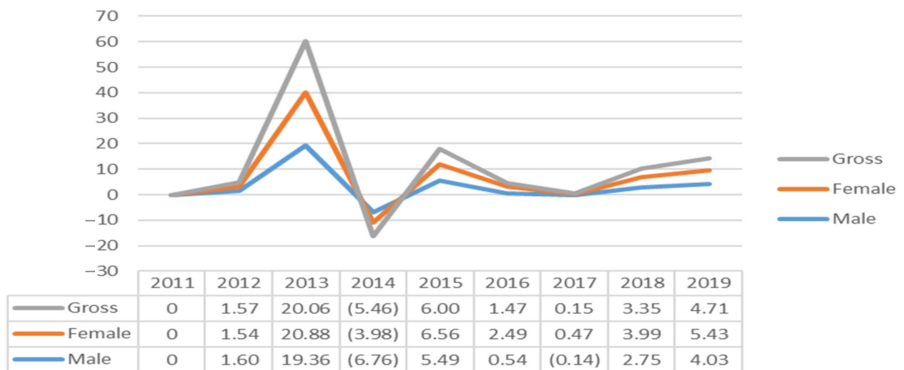


Figure 1.
Trend of secondary school enrolment in Ghana

Source(s): World Bank (2020), <https://datacatalog.worldbank.org/>

inclusive educational policy to expropriate electoral capital cannot be trivialised. To the best of our knowledge, no scientific inquiry has been undertaken in Ghana to examine voters or voting behaviour to such an innovative all-inclusive educational policy.

In this benefit-sharing proposition, the politician who champions a free public good policy such as the FSHS policy latently expects to benefit electorally by playing the free education card in electoral campaigns. However, it is the electorates who decide by voting for who assumes public governance of the country after assessing the policies presented by general election contestants. Ever since adopting constitutional rule in 1992, the Ghanaian electorate has had the privilege of deciding at eight different electoral cycles which political policy alternative they prefer. The key research question is: amid the myriad of public policy offerings such as economic, security, health, fighting corruption, education, housing, among others, can the FSHS educational policy influence voting behaviour? The main objective this study seeks to achieve is to investigate whether the FSHS educational policy drives voting behaviour, using the 2020 general elections as the case for investigation.

In line with the FSHS all-inclusive educational policy, this present study argues that there is a relationship between the FSHS educational policy and voting behaviour. Hence, this study seeks to investigate it further to provide empirical evidence to substantiate the claim. This is important because it brings to the fore the relevance of all-inclusive developmental programmes and their criticalness to the voter in a developing country. Similarly, it highlights the issues that are of prime importance to voters in deciding on who they vote for in general elections. The byproduct is that political parties and general election contestants, based on lessons from this study will begin to craft and present implementable manifestos and promises to the voter.

The paper is structured as follows: [Section 2](#) provides an overview of Ghana's Educational Policy including FSHS policy. [Section 3](#) reviews related literature; [Section 4](#) presents the methodology; [Section 5](#) analyses the results of the study; [Section 6](#) presents a discussion of the results, and [Section 7](#) draws the conclusion and policy implications of the study.

2. Overview of Ghana's educational policy

Dating back to 1951, years before Ghana attained independence, was the Accelerated Development Plan for Education. This programme of action was aimed at increasing school enrolment in the then Gold Coast now Ghana. Then came the Education Act of 1961 which increased enrolment at the basic level. These provisions made primary and middle schools free and compulsory for all children. The policy continued to live until 1966 when cost-sharing in the use of textbooks and stationery was introduced. Later on, when the 1992 constitution came into force, in response to the strong demands of the citizenry at that time, the government introduced the free and compulsory universal basic education (FCUBE).

Subsequently, in line with SDGs, a continuum of the Millennium Development Goals (MDGs) is the push for universal primary education and equal access to secondary education. In an attempt to drive the current policy towards achieving the overarching global development goal, Ghana in September 2017 launched the FSHS educational policy. Consistent with the state-led model which has its basis in Article 25(1) (b) of the 1992 Constitution of Ghana, "*Secondary Education in its different forms, including technical and vocational education, shall be made generally available and accessible to all by every appropriate means, and in particular, by the progressive introduction of free education*". The FSHS educational policy was launched as a key flagship programme of the government. This policy came in as an all-inclusive strategy to provide access to qualified senior high students in Ghana, and to deal with the school fees challenge that was believed to have kept some qualified students out of school. The FSHS caters also for the interest of vocational and technical schools' students through non-payment of tuition fees, library books, admission,

utility, science centre, examination, meals, free textbooks and free boarding facilities. This FSHS policy is built on four pillars: first, removal of cost barriers, through the absorption of fees by the government as approved by the Ghana Education Service (GES) Council; second, the expansion of physical school infrastructure and facilities to accommodate the expected increase in enrolment; third, improvement in quality and equity through the provision of core textbooks and supplementary readers, teacher rationalisation and deployment, among others; and fourth, development of employable skills, which is to improve the competitiveness of Ghanaian students to match the rest of the world. Overall, the estimated cost of the FSHS in its first year of implementation was GHS400,266,285.87 (equivalent of about \$100m) (Ministry of Education, 2017).

Generally, educational policy interventions are expected to produce some level of positive outcomes. Admittedly, not all educational policies have produced the expected outcomes. While some have produced positive outcomes (e.g. Kerwin and Thornton, 2021; Boatman and Long, 2016; Tatiana *et al.*, 2016; Moussa *et al.*, 2015; Dynarski and Scott-Clayton, 2013; Garlick, 2013; Dinkelman and Martinez, 2014; Melguizo, 2011; Natasha and Michelle, 2011; Meneses and Blanco, 2010; Stater, 2009), others have produced negative (e.g. Barron *et al.*, 2009; Casey *et al.*, 2012; Gugerty and Kremer, 2008; Humphreys *et al.*, 2012) and inconclusive or indifferent outcomes (e.g. Finkel and Smith, 2011; Finkel *et al.*, 2012).

Since independence, the educational policies pursued in Ghana have tilted towards the liberal arts and humanities which prepare learners for white-collar jobs. This has been largely successful, providing Ghana with the requisite manpower to manage its economy. However, there are other areas that these educational policies have failed or have had little impact. The areas include education for people with special needs, as there exist no clear goals in special needs education in many sub-Saharan African countries (Anastasiou and Keller, 2014). Technical and vocational education has not provided the needed technical expertise, as this sector of education has not received the needed resources (Essel *et al.*, 2014); hence, there exist many expatriates providing technical support in some key areas of the economy such as mining and oil and gas exploration. There also exist training mismatch and inadequate apprenticeship programs for students to acquire practical knowledge during schooling (Ayentimi *et al.*, 2018). In recent times, calls for entrepreneurial education, and the push towards science, technology, engineering, and mathematics (STEM) based practical education, is widely known. Generally, the FSHS is expected to increase access to secondary school education, reduce household expenditure on education, enhance employment prospects, and reduce gender, rural-urban and income inequalities, respectively, among others. Indeed, to the best of our knowledge, what remains unanswered is how the reception of this free public policy promised by politicians influences voters or voting behaviour?

3. Review of related literature

Many empirical studies have examined the factors that influence the behaviour of voters using a variety of data and methodologies and have arrived at divergent results (e.g. Anebo, 2001; Debrah, 2009; Erdmann, 2007; Andrews and Inman, 2009; Hayes, 2010; Conroy-Krutz, 2013; Koppensteiner and Stephan, 2014). These studies have identified religion, family lineage, ethnicity, economic conditions, performance of the incumbent party, campaign issues, party affiliation, developmental policy achieved and campaign messages among others as factors that drive the behaviour of voters (Andrews and Inman, 2009; Hayes, 2010; Conroy-Krutz, 2013; Koppensteiner and Stephan, 2014).

Many theories have been employed to explain voting behaviour. Prominent among these theories are sociological, psychological and rational choice models (Lazarsfeld, 1944; Downs, 1957; Harrop and Miller, 1987). The sociological approach links voting behaviour to

membership of a group, implying that voters are likely to embrace a voting pattern that exhibits the socio-economic inclination of an associated group, such as religion, social class, area of residence and ethnicity (Lazarsfeld, 1944; Harrop and Miller, 1987). The sociological model focuses on the relevance of social alignment, indicating the various divisions and tensions within society. Interestingly, psychological factors include sociological factors in the analysis of voter behaviour with party affiliation, position on issues and attitude towards candidates as a dominant factor affecting voting behaviour.

The rational-choice approach examines the voter based on self-interest decisions emanating from the cost-benefit analysis of the voter (Downs, 1957). It is the most comprehensive approach in the analysis of voter behaviour which examines voter behaviour from both non-evaluative and evaluative perspectives (Lindberg and Morrison, 2008). In the non-evaluative approach, voter behaviour is largely driven by non-rational assessment of political parties or candidates such as gifts, ethnic, family, clan or personal ties or patronage. Conversely, evaluative voter behaviour critically and rationally examines candidates or political parties prospectively and retrospectively. Regarding the former, voters essentially examine the nature of the party, policies and programmes they intend to implement when given the mandate. For the latter, voters assess the performance of political parties based on the provision of public goods, accountability and how sensitive they have been in addressing the needs of the citizenry. Thus, voting is done retrospectively to do away with nonperforming incumbent or prospectively on the basis of promises made to the electorate. Thus, the rational-choice model regards voters as rational economic agents in the market who express their preferences based on policy alternatives presented by political parties or candidates.

Quite a number of Africa-specific studies have found empirical evidence in support of the sociological theory (Erdmann, 2007; Andrews and Inman, 2009; Conroy-Krutz, 2013). For instance, Erdmann (2007) examined the effect of ethnicity, voter alignment and political party affiliation on political outcomes in Zambia. Using a random sampling technique to select a sample of 1,001 respondents above the age of 18 years in March 2004, the author found that ethnicity is a determinant of political outcomes in Zambia. They concluded that ethnicity affects voting behaviour, and that parties and politicians are more likely to direct resources to their co-ethnics.

Similarly, Andrews and Inman (2009) investigated the effect of voting behaviour in seven African countries using 2005 Round 3 Afro barometer survey data. The authors found that ethnicity drives voting behaviour in Africa. They revealed that while vote buying is significant in the pooled sample, such evidence could not be found in separate country analysis. In a related study, Conroy-Krutz (2013) examined the effect of information and ethnicity on electoral outcome in Uganda. Applying survey experiments with respondents assessing candidates under various information environments, the author revealed that in the presence of adequate information, the effect of ethnicity on electoral outcomes declines. Moreover, where more information is available to voters, the distribution of gifts geared towards attracting more votes could be detrimental.

Other empirical studies have also found evidence in support of the psychological hypothesis (Koppensteiner and Stephen, 2014; Nwanganga *et al.*, 2017). For instance, Nwanganga *et al.* (2017) examined how personality of voters' decisions affects the outcome of election in the 2015 presidential elections in Nigeria. Using questionnaires to solicit information from 400 respondents from 6 geo-political areas as instruments of data collection zones in Nigeria, the authors demonstrated that the personality traits of candidates are key in determining electoral outcomes. Koppensteiner and Stephen (2014) also found that first impression and personality traits affect voting behaviour, consistent with the findings of Nwanganga *et al.* (2017).

Although previous studies have found evidence in support of the sociological and psychological theories, our current study is situated within the rational choice theory. The rational choice model explains how unattached voters make their decisions during elections and

why election results remain the same in some jurisdictions while changes occur frequently in electoral outcomes in other countries. However, the model fails to explain why a greater percentage of voters maintain their votes for a particular party irrespective of the changes in social, political and economic conditions. It also fails to explain why the incumbent party wins in the face of deteriorating economic conditions or lose when economic performance is remarkable.

Despite these limitations, scores of empirical studies have found evidence in support of the rational choice theory (Anebo, 2001; Debrah, 2009; Dendere, 2013; Harding, 2011). For instance, Anebo (2001) investigates the relationship between voter choice and electoral decisions in Ghana in the 2000 presidential elections. The author revealed that voters' decisions are influenced by their living conditions and the party that is likely to improve their living condition contrary to the notion that electoral outcomes are merely ethnic consensus.

Other related African studies, such as Erdmann (2007), showed that there is a link between educational levels of voters and electoral decisions in Zimbabwe. This implies that the probability that voters with high educational background would vote based on issues is likely to be higher than those with low educational levels. A later study by Dendere (2013) also revealed that voters make their decisions based on policy and economic preferences rather than ethnicity consistent with the earlier study of Anebo (2001).

In Ghana, Lindberg and Morrison (2008) examined voting behaviour using a sample of 690 respondents from 6 constituencies in 4 regions in 2 elections (1996 and 2000). The authors noted that only one out of ten voters are influenced by either vote buying or ethnicity and family ties in elections, while between 85 and 90% vote on issues. In Ghana, the majority of the electorate constituting 48.5% voted based on the policies of political parties in 2016 (FES, 2017). It stands to reason that, differences in policies contained in the manifestos of political parties can either increase the probability of winning or erode political fortunes. Debrah (2009) also found that economic conditions and the performance of incumbent drive voting decisions in Ghana.

Similarly, using data based on the 2004 and 2008 elections in a recent study, Harding (2011) shows that the provision of public goods drives the voting behaviour of voters particularly in rural communities in Ghana. Thus, policies and issue-based campaigns which benefit individuals and households directly are the basis on which individuals vote. In a more related study, Adams *et al.* (2018) also investigated several factors, including educational policy and how they affect the voting behaviour of 2042 swing voters from ten regions in Ghana based on six national elections from 1992 to 2012. Using the logistic regression model, the authors revealed that among other factors, educational policy is a major driver of electoral outcomes in Ghana. Again, Adams and Agomor (2015) used the same dataset as Adams *et al.* (2018) in an effort to contribute to the debate on drivers of voter behaviour in Ghana. The authors identified five main factors which include campaign message, human relations of the presidential candidate, educational policy, personality of candidate and performance of the ruling government. Although the earlier study by Adams *et al.* (2018) and Adams and Agomor (2015) are somewhat similar to the present study, they differ on grounds that while the previous studies included the importance or otherwise of educational policies in general, the present study focuses on the government's all-inclusive flagship FSHS educational programme. To the best of our knowledge, no study has empirically investigated this relationship, hence we fill the gap.

4. Methodology

4.1 Data collection process

The purpose of this study is to examine the role of an all-inclusive developmental programme in education for beneficiary voters as well as the perceived impact of the policy on voting behaviour. Given that Ghana rolled-out an FSHS policy in 2017 and went to the polls in December, 2020, Ghana became the best case for this relationship to be studied. In this

context, we are able to observe the full roll-out of the programme, identify households with beneficiaries, and distinguish people who either believe the programme has made an impact on the development of education or otherwise.

On account that Ghana's general election was scheduled for December 7, 2020, and that the questionnaire was to be administered before the elections, the study had to rely on an online survey because of the coronavirus disease 2019 (COVID-19) pandemic. Indeed, primary data were obtained using the Google questionnaire form. The survey which took place over a period of eight days commenced on the 28th November, 2020, and ended on the 5th December, 2020. This period was considered ideal because by this time, voters' decisions on their choice of candidate to a larger extent may have been made.

Similar to [Amoah and Amoah \(2021\)](#), we used the snowball sampling technique for the data collection. This process involves the team of researchers sharing the Google questionnaire link online with their online network for real-time responses to be collected. All recipients who completed the questionnaire were also encouraged to forward the same to their networks for real-time responses to be collected. This process continued over and over until the end date. Admittedly, this technique is generally prone to sampling selection bias ([Amoah and Amoah, 2021](#)). Given that the data collection took place during the COVID-19 pandemic era, this technique is considered ideal under the circumstance. Despite the challenge, the variables of interest as presented in the descriptive statistics are relatively stable.

The total number of observations obtained for the study was 413, which is statistically representative following [Yamane \(1967\)](#). Thus, this study relies on a representative sample size of 413. The unit of analysis constitutes citizens who are at least 18 years, and are eligible to exercise their franchise during the December 7, 2020, general elections. The questionnaire made it clear from the onset instructions, the category of people who could complete the questionnaire. Mandatorily, all respondents were made to indicate their age for outliers to be excluded. In fact, at the time of collating and cleaning the data, it was observed that no minor was included in the dataset. That is, all respondents were qualified voters who by law had the right to exercise their franchise during the polls.

The main survey commenced after a pilot survey which lasted for a day. No major concern was identified and raised during the pilot survey. Hence, no major amendment was made to the questionnaire before it was administered. The questionnaire was designed to be easy to comprehend. Also, it was not too comprehensive so as to prevent possible respondent's fatigue effects. Again, for a developing country like Ghana with poor network and high cost of data, administering a long survey could be detrimental to the data collection process. Indeed, the attrition rate would be high, the cost of completing the survey to the respondent will as well be high and all these could serve as a disincentive to survey participation. To avoid this, the average time required to complete the questionnaire was boldly spelt out in the instructions as a way to motivate people to participate in the survey. The questionnaire had four main sections. Section one had questions on electoral outcomes; section two had questions on the educational policy; section three had questions on respondents' demographic characteristics; and section four had some supplementary questions. All respondents were informed of their right to decline participation either before or during the administration of the questionnaire. Once the survey was completed, we obtained real-time data from the survey. It is important to acknowledge that after the survey, respondents were randomly selected and incentivised for voluntarily participating in the survey. This was possible because respondents who were interested in the freebies were made to provide their mobile numbers for free mobile recharge credit to be sent to their phones. Admittedly, not all respondents provided their mobile numbers; nonetheless, the majority provided their numbers for the purpose. It is important to mention that respondents were promised utmost confidentiality, so numbers collated were discarded after the mobile recharge credit was sent.

4.2 Econometric technique

As earlier indicated, the purpose of this study is to model FSHS educational policy as a function of electoral outcomes. Given that the dependent variable takes a nominal form, we present a voter's choice as the probability that respondent i chooses alternative j . This is presented using the multinomial logit model following [Greene \(2012, 2003\)](#) as:

$$Prob(choice_i = j) = \frac{e^{\beta_j x_i}}{\sum_{k=0}^4 e^{\beta_k x_i}}, \quad j = 0, 1, \dots, 4; \quad i = 1, \dots, n$$

where x_i is a vector of explanatory variables for respondent i , and β is the unknown parameter to be estimated, all parameters are as earlier defined. We explicitly re-present the regression model as:

$$Prob(y = j) = \beta_0 + \beta_1 Impact + \beta_2 Beneficiary + \beta_3 Controls + u$$

where y is a nominal dependent variable representing four unique electoral outcomes. Outcome 1 represents the number of people who expressed their intention to vote for the NPP, outcome 2 represents the number of people who expressed their intention to vote for the NDC, outcome 3 represents the number of people who expressed their intention to vote for any of the other political parties in the contest, and outcome 4 represents those who chose not to vote for any political party for reasons unknown to the researchers.

There are two main independent variables of interest. First, respondents who believe that the FSHS (*Impact of FSHS*) has made an impact on students' performance in the 2019/2020 academic year. The impact was measured with a Likert scale ranging from one (1) to seven (7). This measure ranging from 1–7 can be treated as continuous data. For simplicity of interpretation, we treated this as continuous data and interpreted our results in that light. The second independent variable of interest is the number of individual FSHS beneficiaries in a household. This variable is measured as a continuous variable (*Number of FSHS Beneficiaries*). It starts from households with no beneficiary to the maximum number of beneficiaries in a household. The socioeconomic characteristics of the respondent were included in the model as controls. These include gender (Male), age in years, marital status (MS), employment status (ES) and educational level completed (Edu). In addition, we controlled for regional and community specific fixed effects.

4.3 Validity and reliability of study

The team of researchers together with other experts in surveys reviewed the designed questionnaire in line with the national sample before the fieldwork began. During the pilot survey, no query was raised. To this end, we argue that the pilot study presaged and informed the quality of the main study. Also, key questions asked regarding the main objective were not ambiguous and elicited the right responses lending credence to the validity of the instruments used. In addition, following statistical inferences for sample size determination, we are confident that our sample is nationally representative. Similarly, the choice of the estimator with relevant diagnostics investigated lends credence to the rigour in the analysis and reliability of the results.

4.4 Ethical considerations

As earlier mentioned, respondents were assured of utmost confidentiality of information shared. Again, respondents were assured of their anonymity, to this end, no single person's information can be figured out in the analysis of results. None of the authors have openly declared his/her political support for any political party. No political party committed any

financial support to this study. The authors have no potential conflicts of interest with respect to this research. Also, the sources and processes used in collecting the data have been duly acknowledged. The study has no direct effect on the physical, psychological, mental and emotional health of respondents. All of the sources of information used in this study have all been properly referenced.

In Table 1, the total number of observations used for the outcome variable is 413 representing the entire sample. Although the respondents are spread across the regions of Ghana, it is important to acknowledge that over 60% were drawn from the Greater Accra Region which is cosmopolitan in nature and has a high number of swing constituencies presenting an equal chance for any of the parties to win. Given the total sample of votes, with the 25th percentile, the NPP is found to have dominated. However, with the 75th percentile, the NDC also dominated. Averagely, we find that the NPP still dominates. The coefficient of variation (cv) of 0.50 suggests that the electoral outcome variable is relatively stable. About 5% of the respondents did not respond to the question on impact. For perceived impact, the 25th and 75th percentiles “disagree” and “agree” respectively, howbeit “not strongly”. Similarly, the 50th percentile “agree”. This median suggests that half of the respondents agree that the FSHS policy has made the needed impact on students’ academic outcomes. Again, the cv of 0.40 implies a relatively stable variable.

For the control variables, *gender* is captured as a dummy variable, where male = 1 and female = 0. *Age* is a discrete variable measured in years. *MS* is a dummy variable where married = 1 and unmarried = 0. *ES* is represented as a dummy variable where the employed = 1, and the unemployed = 0. *Edu* is captured as a categorical variable where 1 represents respondents who have completed primary level of education, 2 denotes respondents who have completed secondary level of education and 3 represents those who have completed tertiary level of education.

On average, males are found to dominate in the sample. Again, the average age of the respondents is 44 years, with the minimum and maximum being 22 years and 74 years, respectively. On average, the unmarried as well as the employed also dominated in the sample. The tertiary level dominated the education level completed. Generally, most of the variables appear to be reasonably stable. Thus, we expect that the estimates are valid and reliable for prediction as the study seeks to provide.

5. Results

Table 2 displays the multinomial logit regression results of the impact of the FSHS educational policy on political outcomes in Ghana. For robustness checks, three different regressions are estimated for each of the four nominal outcome variables. Columns 1–3 present regression results without control variables as well as regional and community fixed

| Variable | <i>N</i> | p25 | p50 | p75 | Min | Max | cv = sd/mean |
|---------------|----------|-----|-----|-----|-----|-----|--------------|
| Outcomes | 413 | 1 | 1 | 2 | 1 | 4 | 0.50 |
| Impact | 395 | 3 | 5 | 6 | 1 | 7 | 0.40 |
| Beneficiary | 409 | 0 | 1 | 2 | 0 | 5 | 1.17 |
| Gender (male) | 411 | 0 | 1 | 1 | 0 | 1 | 0.65 |
| Age | 413 | 44 | 44 | 59 | 22 | 74 | 0.38 |
| MS | 412 | 0 | 0 | 1 | 0 | 1 | 1.03 |
| ES | 412 | 0 | 1 | 1 | 0 | 1 | 0.73 |
| Edu | 410 | 3 | 3 | 3 | 1 | 3 | 0.13 |

Note(s): *N* = Observations, p25–p75 denotes 25th–75th percentiles, Min = Minimum, Max = Maximum, cv = coefficient of variation

Table 1.
Descriptive statistics

Table 2.
Multinomial regression
results

| Variables | (1) NPP | (2) NDC | (3) Other | (4) NPP | (5) NDC | (6) Other | (7) NPP | (8) NDC | (9) Other |
|-------------------------|-------------------|--------------------|-----------------|-------------------|-------------------|-----------------|-------------------|-------------------|-----------------|
| <i>Impact of</i> | | | | | | | | | |
| <i>FSHS</i> | 0.7578*** (0.159) | -0.5077*** (0.158) | -0.2409 (0.220) | 0.8791*** (0.192) | -0.4304** (0.189) | -0.1628 (0.228) | 0.8438*** (0.189) | -0.4234** (0.186) | -0.1371 (0.220) |
| <i>Number of</i> | | | | | | | | | |
| <i>FSHS</i> | 0.8650** (0.425) | 0.4975 (0.434) | 0.5295 (0.474) | 0.8852** (0.406) | 0.5317 (0.409) | 0.4485 (0.448) | 0.8787** (0.427) | 0.5264 (0.429) | 0.4278 (0.468) |
| <i>beneficiaries</i> | | | | | | | | | |
| Controls | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Regional fixed effects | No | No | No | No | No | No | Yes | Yes | Yes |
| Community fixed effects | No | No | No | No | No | No | Yes | Yes | Yes |
| Constant | -1.4938** (0.740) | 3.6523*** (0.630) | 0.2506 (0.813) | -2.9615 (3.551) | 3.2025 (3.583) | 1.8632 (3.695) | -2.0615 (3.977) | 1.9858 (3.975) | 2.4502 (4.598) |
| Observations | 392 | 392 | 392 | 386 | 386 | 386 | 357 | 357 | 357 |

Note(s): Dependent variable: Voting behaviour; Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

effects. Columns 4–6 include controls, while columns 7–9 include both controls and fixed effects (regional and community). The results are consistent across models. However, for the purposes of this study, we limit our discussion to columns 7–9 which controls for gender, age, marital status, employment status and include both regional fixed effect and community fixed effect. Admittedly, given the focus of the study, less emphasis is placed on the controls and the regional and community effects. It is also important to acknowledge that, in this study, NPP, NDC and all other parties represent those who will vote for the NPP, NDC and all other parties, respectively.

With reference to those who will not vote for any party, the results show that the impact of the free SHS policy has the tendency to increase the political fortunes of the NPP, while decreasing the same for the NDC. However, for the other political parties, we find no statistically significant effect. The implication is that respondents who are of the view that the FSHS policy has had a positive impact on academic performance are more likely to vote for the NPP and less likely to vote for the NDC. However, no statistically significant effect was found for all the other parties together.

Next, the number of current beneficiaries of the FSHS policy was also found to drive political outcomes. For the NPP, as the number of current beneficiaries increases, the tendency to vote for the NPP increases. This implies that those who are current beneficiaries of the FSHS policy are more likely to vote for the NPP and less likely to vote for the NDC. For other parties, however, there is no such evidence.

We extend our analysis by estimating marginal effects which generate coefficients for each of the categories. Using the *mchange* command in STATA as developed by Long and Freese (2014), Table 3 shows the marginal effect regression results of how FSHS educational policy influences voting behaviour in Ghana. The interpretation of the marginal effect follows the style used in Lagerkvist *et al.* (2018). While Table 2 relies on relative estimates with a

| | NPP | NDC | Others | None |
|--|----------|-----------|-----------|-----------|
| <i>Impact of free-SHS</i> | | | | |
| +1 | 0.123*** | -0.107*** | -0.006** | -0.009** |
| +SD | 0.211*** | -0.183*** | -0.011*** | -0.017*** |
| Marginal | 0.131*** | -0.117*** | -0.006** | -0.003* |
| Standard error | 0.006 | 0.006 | 0.002 | 0.004 |
| <i>Number of free-SHS beneficiaries</i> | | | | |
| +1 | 0.046*** | -0.022** | -0.005 | -0.019** |
| +SD | 0.073*** | -0.039** | -0.008 | -0.026** |
| Marginal | 0.049*** | -0.025* | -0.002 | -0.0022 |
| Standard error | 0.013 | 0.013 | 0.005 | 0.009 |
| <i>Controls (socio-economic characteristics)</i> | | | | |
| Observations | 357 | 357 | 357 | 357 |
| Community fixed effect | Yes | Yes | Yes | Yes |
| Regional fixed effect | Yes | Yes | Yes | Yes |
| <i>Average predictions</i> | | | | |
| Pr(Y base) | 0.608 | 0.325 | 0.028 | 0.039 |

Table 3.
Marginal effects
regression results

reference category or a base case, [Table 3](#) (the marginal effects of the multinomial regression) relies on absolute estimates; hence, we do not expect their estimates and significance to be the same, unlike the standard logit or probit regression models.

The results reveal that for the *NPP*, the impact of the FSHS educational policy is positive and statistically significant on electoral outcomes in Ghana but negative and statistically significant for *NDC*, other parties and none (i.e. those who will not vote at all). Specifically, all else held constant, if the FSHS policy is perceived to have impacted on students' performance, the probability of voting for *NPP* will averagely increase by 0.123, 0.211 and 0.131 for a unit, standard deviation and marginal increase, respectively. On the other hand, all else held constant, if the FSHS policy is perceived to have impacted on students' performance, the probability of voting for *NDC* will averagely decrease by 0.107, 0.183 and 0.117 for a unit, standard deviation and marginal increase, respectively. In addition, the chances to vote for other parties will decrease by 0.006 units, and the probability of not voting at all will also decrease by 0.009 units if the free SHS policy is believed to have made an impact on students' performance. The magnitude of the response to the free SHS policy declines in absolute terms across categories. The sensitivity to the impact of the free SHS policy is more pronounced in the two major political parties (*NPP and NDC*).

In the same vein, the increase in the number of beneficiaries of the FSHS policy in a household has a positive and statistically significant effect on voting behaviour in favour of the *NPP* but statistically negative and significant effect on voting behaviour for *NDC* and those who will not vote for any party. However, for other political parties, the number of beneficiaries of the policy exerts no statistically significant effect on voting behaviour. Specifically, the increase in the number of beneficiaries by one will increase the probability of voting for *NPP* by 0.046 units. In contrast, the increase in the number of beneficiaries is likely to reduce the electoral fortunes of *NDC* and *those who will not vote* by a probability of 0.022 and 0.019 units. However, the number of beneficiaries exerts no significant effect on voting behaviour for other parties and those who will not vote at all.

For the two major political parties, the probability that the electorate will vote for the *NPP* is 61%, while the probability for voting for the *NDC* is 33%, indicating strong voter preference for the incumbent political party (*NPP*) as at the end of the year 2020. This evidence is mainly driven by the impact and benefits associated with the all-inclusive FSHS education policy implemented by the incumbent.

6. Discussion of results

Developmental policies are generally expensive to implement; however, their expected outcomes to the politician cannot be overemphasised in a democratic environment. This study sets to investigate the extent to which Ghana's FSHS translated into political fortunes via voters' behaviour for the incumbent political party. The results show evidence that households with a rising number of FSHS beneficiaries are more likely to vote for the policy implementor. This is likely so because the funding burden on these families has been lessened; therefore, there is a reciprocal gesture to vote for the party that implemented the policy. Similarly, respondents who believe that the FSHS has made an impact on the academic fortunes of students are more likely to vote for the *NPP*. The reason for the results obtained in the present study is not far-fetched as it is underpinned by the theory of rational choice. In a broader sense, theoretically, evaluative and non-evaluative approaches are the foundational premise on which voters make their decisions ([Lindberg and Morrison, 2008](#)). That is, a voter after assessing the cost-saving impact of the education policy on his household is motivated to affirm and retain such policy implementer.

In the present study, we find that voting behaviour is significantly driven by the FSHS policy, validating the rational choice theory. The key finding of this study is consistent with

the findings of [Harding \(2011\)](#) and [Adams *et al.* \(2018\)](#). [Harding \(2011\)](#) revealed that the provision of public goods determines electoral decisions in Ghana, while [Adams *et al.* \(2018\)](#) found that general educational policies of political parties predict political outcomes in Ghana. Thus, policies and issue-based campaigns which benefit individuals and households directly are the basis on which individuals vote ([FES, 2017](#)).

[Down \(1957\)](#) contends that the choice of a political party or candidate in established democracies is informed by the benefits voters stand to gain when the party or candidate assumes power. Thus, voters are influenced by the policies and ideologies of political parties. For instance, in the 2016 elections, the NPP main campaign message centred on the provision of FSHS and other developmental policies such as one village one dam, one district one factory and one district one million dollars, while the NDC focused on infrastructural development such as road construction, construction of health facilities, etc. However, NDC's decision to scrap teachers' and nurses' allowances which hitherto had supported students from poor communities as well as the attempt to cancel the research and book allowance of lecturers as widely published and discussed in the media was used against them by the incumbent in the 2016 elections. The cost of education plays a critical role in school enrolment, and it is a major family expenditure item for many families in poor communities in Ghana. However, the promise by the NPP to restore these allowances together with FSHS may have been the game changer in 2016.

It is evident that the differences in the campaign messages of the two dominant political parties accounted for the voting behaviour. It is therefore an undoubted fact that such behaviours contributed significantly to the outcomes of the 2020 general elections. As has been argued by [Nordlin \(2014\)](#), political campaign messages that are defined and well-explained to voters have the probability of influencing their voting behaviour. The finding of the present study is indicative of the fact that voters' preferences are contingent on policy options of political parties.

7. Conclusion

The question that concerns the drivers of voting behaviour has been widely researched. However, all-inclusive developmental policies in Ghana, especially in regard to education have been less attended to in the empirical literature. In September 2017, Ghana rolled out an FSHS policy; however, the extent to which this policy influenced voting behaviour and political fortunes, to the best of our knowledge, is yet to be examined. Following the theoretical underpinning, this paper hypothesises that there is a statistically significant relationship between Ghana's all-inclusive FSHS developmental policy and voters' behaviour. Using survey data on a representative sample, we estimated a multinomial logistic model with its marginal effects and find evidence that households with a FSHS beneficiary are more likely to vote for the implementor of the FSHS policy. Similarly, individuals who believe that the FSHS policy has made an impact on students' performance are more likely to vote for the incumbent policy implementor. That is, a resounding all-inclusive policy that is devoid of discrimination and resonates well with voters can translate into votes. A key channel that makes this evidence plausible is through socio-economic/demographic short- and long-term gains (such as reduction in household cost of education, acquisition to skill and training to enhance employment prospects, reduction in gender, rural-urban and income inequalities respectively) associated with this all-inclusive development policy. However, if such development strategies are not prioritised and implemented the aforementioned short- and long-term inequalities may persist, if not widen. We recommend that political parties (politicians) in Ghana must focus on all-inclusive development projects as these projects have the potential of rewarding policy implementors. Furthermore, all-inclusive development policies must be well-targeted so that the intended beneficiaries benefit from the interventions. Lastly, towards the implementation of development policies,

loopholes that can erode policy gains must be identified and closed, or all efforts will remain a façade. Indeed, it is important to acknowledge that only developing a developmental policy may not be satisfactory but implementing it for all to benefit is the way to go in Ghana.

By way of limitations, we acknowledge that although under the circumstances the non-probability snowball sampling technique is ideal, it does not rule out its possible weaknesses. We suggest that going forward further studies must highly consider a probability sampling technique. Again, other development policies must be evaluated on other outcomes to inform policy choices and decisions in Ghana.

Notes

1. Chapter 5, Article 25 (1a): Educational Rights, The 1992 Constitution of the Republic of Ghana. https://www.constituteproject.org/constitution/Ghana_1996.pdf
2. Available at <https://data.worldbank.org/indicator/SE.PRM.NENR>

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